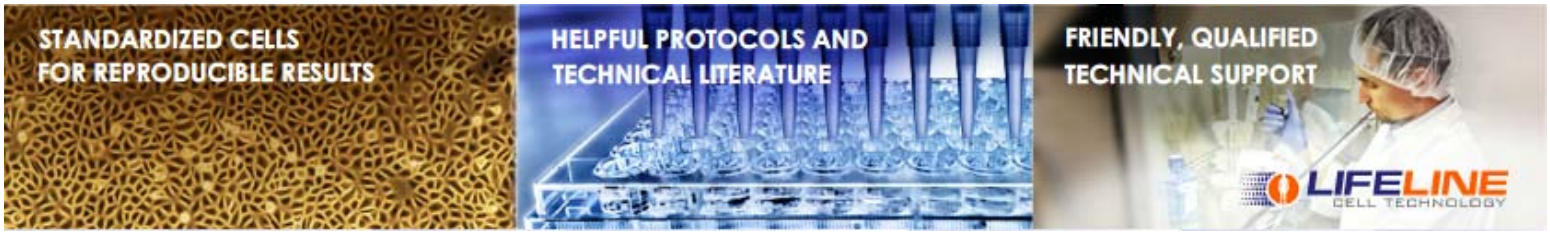


DermaLife® K
A Serum Free Human Keratinocyte Medium
Also Available Calcium Free

Specification Sheet

DermaLife K is a new serum-free medium optimized for the culture of human keratinocytes. DermaLife K supports the growth of these cells over a period of at least 15 population doublings. DermaLife K contains no antimicrobials and no phenol red since these components can cause cell stress that may influence experimental results. Lifeline® offers these traditional supplements; however they are not needed, or recommended, to achieve optimal cell performance.

When used in conjunction with Lifeline's Normal Human Epidermal Keratinocytes (NHEK), DermaLife provides an excellent research tool for the study of wound healing, toxicology or epithelial biology in a serum-free cell culture environment.

DermaLife Medium is now also offered ***in a calcium-free version (LL-0029)***.

Features and Benefits

- **Optimized to Culturing NHEK in a Serum-Free Environment** - DermaLife K Serum-Free Medium grows NHEK through at least 15 population doublings at rates that meet or exceed other commercially available serum-free media while maintaining excellent cell morphology.
- **Kit format for formulation flexibility**- Offered in a kit format composed of basal medium and associated supplements and growth factors called "LifeFactors®." This kit allows you to prepare fresh medium in your laboratory, extending shelf life and enhancing performance.
- **Calcium-free formulation available** - DermaLife Calcium-Free Basal Medium with Lifeline's Calcium chloride supplement gives you the ability to vary the Ca+ concentration to meet your experimental needs.
- **Superior proliferation** - In comparisons with other commercially available media, shows superior proliferation at different seeding densities.
- **Protective packaging** – DermaLife Basal Medium is provided in a light-protected 500 mL bottle. The LifeFactors (growth factors and supplements) are packaged in a convenient gas-impermeable pouch for easy storage.

DermaLife K Medium Kit	Part No.	Volume	Storage
DermaLife K Medium Complete Kit, (DermaLife Basal Medium - 485 mL, DermaLife K LifeFactors Kit)	LL-0007	485mL Supplemented	2-8°C Supplemented
DermaLife Basal Medium	LM-0004	485 mL	2-8°C
DermaLife K LifeFactors Kit	LS-1030	Kit	-20°C

DermaLife K Ca+Free Medium Kit			
DermaLife K Calcium-Free Medium Complete Kit, (DermaLife Calcium-Free Basal Medium - 485 mL, DermaLife K LifeFactors Kit)	LL-0029	485mL Supplemented	2-8°C Supplemented
DermaLife Calcium-Free Basal Medium	LM-0008	485 mL	2-8°C
DermaLife K LifeFactors Kit	LS-1030	Kit	-20°C to RT

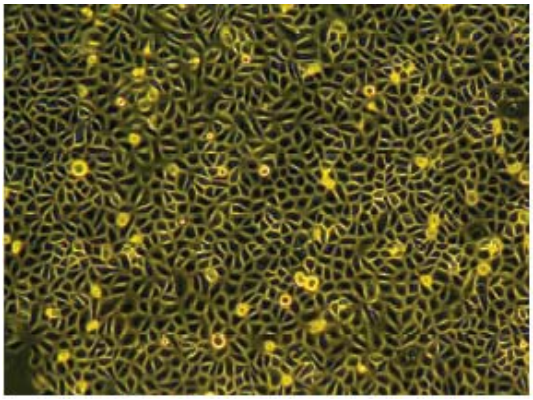
DermaLife K LifeFactors	Part No.	Volume	Concentrations in Supplemented Medium
L-Glutamine	LS-1031	15 mL	6 mM
Extract P™	LS-1037	2 mL	0.4%
Epinephrine	LS-1032	0.5 mL	1.0 µM
rh TGF-α	LS-1034	0.5 mL	0.5 ng/mL
Hydrocortisone Hemisuccinate	LS-1039	0.5 mL	100 ng/mL
rh Insulin	LS-1004	0.5 mL	5 µg/mL
Apo-Transferrin	LS-1033	0.5 mL	5 µg/mL
Calcium Chloride	LS-1049	0.5 mL	Add 11 µL to 84 µL to achieve 0.02 mM to 0.15 mM $CaCl_2$

Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency. Every production lot of DermaLife K Medium is extensively tested using normal human keratinocytes.

DermaLife K Serum-Free Medium is Tested For:	
• Sterility	Negative for bacteria and fungal growth
• pH	7.5 +/- 0.2
• Cell Performance	Rate of proliferation and morphology
• Osmolality	315 +/- 10 mOsm
• Endotoxin	< 0.5 EU/mL

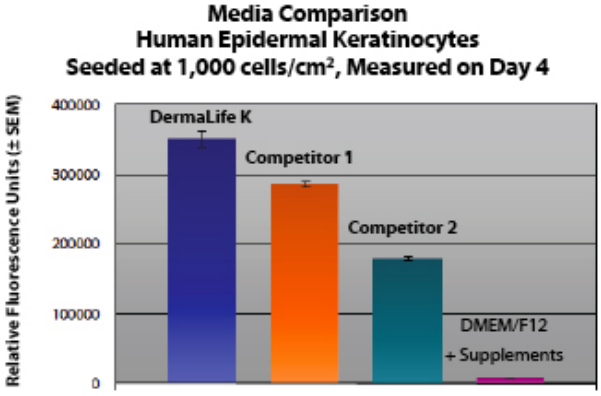
Performance Tested to Insure Value

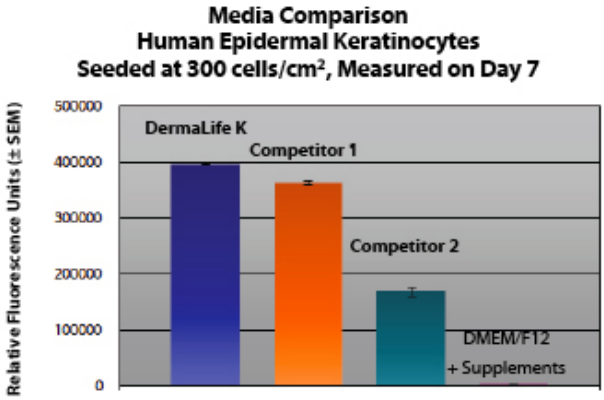


DermaLife K Serum-Free Medium grows human epidermal keratinocytes through at least 15 population doublings at rates that meet or exceed other commercially available serum-free media while maintaining excellent cell morphology. In comparisons with other commercially available media, DermaLife K shows superior proliferation at different seeding densities.

Shown at left: human keratinocytes, passage 2, 5 days after inoculation with 2,500 cells/cm^2, 100X.

Shown below: human keratinocytes inoculated at the stated density in 24-well plates and incubated for 2 hours with rezasurin solution on Day 4 or Day 7. Fluorescence was measured at 530 nm excitation/580 nm emission. Higher fluorescence represents greater proliferation.





Optional Supplements

	Part No.	Volume	Concentrations of Supplement	Storage
Phenol Red Supplement	LS-1009	1.0 mL	33 mM	RT
Antimicrobial Supplement: Penicillin, Streptomycin and Amphotericin B	LS-1011	1.0 mL	Penicillin 10,000 Units/mL Streptomycin 10,000 µg/mL Amphotericin B 25 µg/mL	-20°C

Innovative Packaging Features

Lifeline has made significant improvements to traditional medium packaging.

- The specially designed shrink label works as a light barrier to protect medium from light damage.
- A barrier sleeve helps protect the medium from contaminants found in the water bath.

- Lifeline is an environmentally friendly company. Our cell culture media bottles are recyclable and we ship all products with biodegradable packing material.

The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. If Lifeline's products do not meet our posted performance and quality standards, we will replace them at no charge or provide a full refund. Upon request, Lifeline will provide lot-specific QC test results, material safety data sheets and certificates of analysis. See complete guarantee/warranty statement at lifelinecelltech.com or contact your Lifeline representative for more information.

Safety Statement

This product is For Research Use Only and is not approved for human or veterinary use, or for use in *in vitro* diagnostic or in clinical procedures.

To place an order call Lifeline Technical Service and Sales at 877.845.7787 or visit lifelinecelltech.com for more information.

Lifeline Cell Technology
8425 Progress Drive, Suite Z
Frederick, MD 21701

Lifeline Cell Technology is an International Stem Cell company